D'Imperio Property

New Jersey

EPA ID#: NJD980529416

EPA REGION 2

Congressional District(s): 02

Atlantic

Hamilton Township

NPL LISTING HISTORY
Proposed Date: 12/30/1982
Final Date: 9/8/1983

Site Description

The D'Imperio Property site is a 15-acre parcel of undeveloped real estate, of which 11/2 acres was used as an unauthorized dump in the mid-1970's. The disposal area consisted mainly of partially buried and ruptured metal drums. Many of the drums contained metals and various volatile organic compounds (VOCs), including solvents. The ground water is contaminated and the contaminant plume has been detected in three aquifers. The site is located in a semi-rural area that is now becoming commercialized. Approximately 6,000 people within 3 miles of the site use ground water for drinking. Twenty private wells are located within 1 mile, with the closest well 300 feet upgradient of the site. The site is within the New Jersey Pineland Reserve. The Babcock Swamp wetlands, which are drained by Babcock Creek, are approximately 2000 feet to the southwest.

Site Responsibility: This site is being addressed through Federal and responsible party actions.

Threat and Contaminants

Surface soils were contaminated with volatile organic compounds (VOCs), metals, and phenol. The sub-surface soils and ground water are contaminated with VOCs. Human exposure to site-related contaminants may occur through ingestion of contaminated groundwater or direct contact with contaminated soils.

Cleanup Approach

This site is being addressed in two stages: an immediate action and a long-term remedial phase focusing on cleanup of the entire site.

Response Action Status

Immediate Action: In 1982, U.S. Environmental Protection Agency (EPA) constructed a fence to prevent people from entering the site and coming into contact with hazardous substances.

Entire Site: On March 27, 1985, a Record of Decision (ROD) selecting the remedy for the site was issued by EPA. The components of the remedy included: (1) excavating and transporting of approximately 3,900 cubic yards of contaminated waste, soil, and drums to an off-site EPA-approved facility; (2) constructing a cover or cap over the former disposal area; and (3) pumping and treating the ground water to remove the contaminants and then discharging the clean water back into the aquifers.

On July 3, 2003, EPA issued a ROD Amendment which changed the final component of the remedy selected in the ROD from a cap over the former disposal area to soil vapor extraction of the remaining contaminated subsurface soils.

On March 10, 2010, EPA issued an Explanation of Significant Difference to incorporate the NJDEP Classification Exception Area (CEA) requirement into the groundwater remedy selected in the 1985 ROD.

Cleanup Progress

In 1987, EPA removed 82 buried drums and 3,900 cubic yards (6240 tons) of contaminated soil, and disposed of it in an approved off-site facility.

In September 1992, EPA completed the technical specifications for the groundwater pump and treatment system.

In August 1993, EPA issued a Unilateral Administrative Order (UAO) to 14 potentially responsible parties (PRPs) requiring them to perform a groundwater investigation to define the extent of the contaminated groundwater plume and to construct and operate a ground-water pump and treatment system. The PRPs completed the ground-water investigation in November 1994 and in August 1996 they completed construction of the groundwater pump and treatment system. After resolving the technical problems prevented the system from operating at the design capacity of 155 gallons/minute, the PRPs began operating the groundwater treatment system at full capacity in August 1997. The system was expanded in April 1999 to include a groundwater extraction and re-injection system for the contaminated Lower Cohansey Sand aquifer.

The 1993 UAO contained a provision in the statement of work which required the PRPs to perform a soil study of the former disposal area. This provision allowed for the investigation of remaining source material within the context of the operating groundwater treatment system and the removal action. The PRPs completed the soil sampling study in October 1998. Based on the results of a report submitted by the PRPs in May 1999, EPA concluded that contaminated subsurface soils remained at the former disposal area.

In January 2000, EPA issued a modification to the 1993 UAO. This modification required the PRPs to perform additional sampling at the former disposal area and prepare an evaluation report. The PRPs performed the sampling activities in June 2000 and submitted a draft soils evaluation report in September 2000. This report revealed the findings of the sampling activities and provided an assessment of other remedial alternatives to the ROD-selected cap remedy. The final soils evaluation report was approved by EPA in October 2002. These findings were used as a basis for amending the original remedy selected in the ROD to address the residual subsurface soil contamination. The ROD Amendment changed the final component of the remedy selected in the ROD from a cap over the former disposal area to SVE of the remaining contaminated subsurface soils was signed by EPA on July 3, 2003.

In November 2003, EPA issued a UAO to the PRPs for the remedial design and remedial action (RD/RA) of the SVE system. Following the approval of the final design report and construction work plans, the PRPs began installing the SVE system in June 2004. The construction of the system was completed in July 2004, and operations began in August 2004. With the SVE system operational, the site remedy is construction complete. On September 22, 2004, EPA issued a Preliminary Close–Out Report (PCOR). An Interim Remedial Action Report was submitted by the PRPs in September 2004, and approved by EPA in December 2004.

Currently, the PRPs operate all 13 soil vapor extraction wells to reduce the contaminated vapors within the subsurface soils and conduct monthly performance maintenance and quarterly air monitoring of the vapor extraction system. In addition, an interim assessment work plan is being developed by the PRPs for implementation in 2012.

As part of our on-going effort to ensure the effectiveness of the groundwater treatment system, EPA required the PRPs to initiate a supplemental groundwater investigation (SGI) for the purpose of evaluating the current conditions and quality of the groundwater, and to update the groundwater flow model. An SGI work plan for the installation of five new monitoring wells and the completion of a comprehensive groundwater sample event was submitted by the PRPs in March 2002, and approved by EPA in June 2003. A work plan addendum for aquifer testing was submitted by the PRPs, and approved by EPA in November 2003.

The SGI was conducted by the PRPs between August and December 2003. The results of this investigation indicated that conditions in the contaminated portion of the Lower Cohansey aquifer had changed making it necessary to perform additional remedial activities. The PRPs re-sampled the Lower Cohansey monitoring wells in February 2004 and an SGI report was submitted in June 2004. As a result of the findings in the SGI report, the PRPs submitted a Lower Cohansey Groundwater System Enhancement (LCGWSE) Scope of Work in June 2004. The PRPs installed seven new Lower Cohansey monitoring wells and collected several rounds of groundwater samples from a select list monitoring wells in the Lower Cohansey aquifer between June 2004 and May 2005. These results were used to prepare a Lower Cohansey Groundwater Delineation (LCGWD) report in July 2005. In addition, LCGWSE Scope of Work was revised and a Site Safety, Health and Emergency Response Plan, Construction Quality Assurance Project Plan, and Engineering/Construction Drawings and Technical Specifications Plan were submitted for review and approval. EPA approved of these documents in July 2005.

Between July and December 2005, the PRPs conducted construction activities for the new Lower Cohansey Ground Water Extraction System. This new system was integrated into the on-going groundwater treatment system in January/February 2006. An Operation and Maintenance Plan Addendum and revised Long-Term Groundwater Monitoring Plan was submitted by the PRPs in March and May 2007, respectively, and approved by EPA in October 2007. The LCGWSE certification report for construction activities was submitted by the PRPs in April 2006 and approved by EPA in January 2008.

As part of the NJDEP CEA requirement, the PRPs installed and sampled two Bridgeton Sand Aquifer monitoring wells in March 2007 and two Lower Cohansey monitoring wells in September 2010. Several rounds of sampling conducted at these wells found the results to be below the site performance criteria. EPA issued an Explanation of Significant

Difference on March 10 2010 to incorporate the CEA requirement into the groundwater remedy selected in the 1985 ROD.

In April 2011, EPA was notified by the PRPs about expanding the Lower Cohansey extraction system to capture a small detached groundwater plume located beneath the southeastern corner of property owned by the Board of Education for Hamilton Township. This consisted of installing a new extraction well and pipeline to convey contaminated groundwater back to the treatment system, and 3 new monitoring wells to delineate the plume and monitor the progress of the cleanup. The PRPs also agreed to sample the nearby school property irrigation well. Results showed non-detect for VOCs.

During the fall of 2011, the new extraction well and 3 monitoring wells were installed. The new monitoring wells were sampled and found no traces of VOCs. In February 2012, an additional monitoring well was installed across the road from the school property at the intersection of Route 40 and Babcock Road. Results from this well showed several VOCs above the groundwater performance criteria. Several additional monitoring wells were installed along Babcock Road over the next 12 months to determine the migration of the detached plume. In February and March 2014, the PRPs conducted additional investigation activities to complete delineation of the Lower Cohansey detached plume. These activities were summarized in a delineation report submitted by the PRPs in August 2014. The PRPs followed up by submitting the groundwater optimization strategy report for containing and treating the Lower Cohansey detached plume in October 2014. Future activities include a design investigation and installing and connecting additional extraction wells to the existing treatment system.

The PRPs continue to conduct monthly sampling and perform operation and maintenance activities of the groundwater treatment system along with quarterly groundwater quality of the monitoring wells. Once the groundwater optimization activities are completed, the PRPs will submit a final revised CEA for NJDEP approval.

A five-year review report (FYR) to determined that the remedy continues to be protective of human health and the environment was issued by EPA on July 31, 2009. The second FYR was issued on August 1, 2014.

Environmental Progress

By securing the site with a fence, removing the contaminated soil and drums, and installing the groundwater treatment and soil vapor extraction systems, EPA believes the potential for exposure to contaminated materials and groundwater at the D'Imperio Property site has been significantly reduced.

Site Repositories

Hamilton Township Clerk's Office, Room 201, 6101 Thirteenth Street, May's Landing, NJ 08330

http://www.epa.gov/superfund/sites/npl/nar79.htm
Last updated on 11/27/2012

National Priorities List (NPL)

NPL Site Narrative for D'Imperio Property

D'IMPERIO PROPERTY
Hamilton Township, New Jersey

Federal Register Notice: September 08, 1983

Conditions at listing (October 1981): The D'Imperio Property is a 1-acre inactive open dump bordered by wooded property in Hamilton Township, Atlantic County, New Jersey. It is within 0.3 mile of a major residential development. Prior to 1976, the site, believed to have been an old borrow pit, was used to bury an unknown quantity of 55-gallon drums; 50 corroded drums are exposed. Ground water in the upper aquifer is contaminated with benzene and chlorinated hydrocarbons, including benzene and trichloroethylene. The lower aquifer, the Cohansey Aquifer, is a source of drinking water. Because there is potential for the contamination to flow vertically, the lower aquifer could be contaminated.

Status (July 1983): In September 1982, EPA signed a $368,000 Superfund State Contract with New Jersey to fence the site and conduct a feasibility study to identify alternatives for remedial action. The fence is scheduled to be completed in the fourth quarter of 1983 and the study in the first quarter of 1984.

EPA has identified parties potentially responsible for wastes associated with the site and is seeking their cooperation in the cleanup. The owner of the site filed a complaint for declaratory judgment in District Court on April 22, 1983.

For more information about the hazardous substances identified in this narrative summary, including general information regarding the effects of exposure to these substances on human health, please see the Agency for Toxic Substances and Disease Registry (ATSDR) ToxFAQs. ATSDR ToxFAQs can be found on the Internet at ATSDR - ToxFAQs (http://www.atsdr.cdc.gov/toxfaqs/index.asp) or by telephone at 1-888-42-ATSDR or 1-888-422-8737.

http://www.epa.gov/Region2/superfund/npl/imperio_post_decision.htm
Last updated on 10/5/2010

Region 2 Superfund

D'Imperio Property Site - Post-Decision Proposed Plan July 2004

This Post-Decision Proposed Plan identifies the proposed change to the third component of the remedy selected in the March 1985 Record of Decision (ROD) for the D'Imperio Property Site and provides the rationale for this modification. As described below, the subsurface soils at the site involves treatment utilizing a technology known as soil vapor extraction (SVE). Under the 1985 ROD, these contaminated soils would be capped in place. The Post-Decision Proposed Plan includes summaries of all the cleanup alternatives evaluated for use at this site.